Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1. (withdrawn) A cell comprising a vector carrying a gene encoding a nuclear receptor and a vector carrying the binding sequence of the nuclear receptor and a reporter gene located downstream of said binding sequence

Claim 2. (withdrawn) The cell of claim 1, wherein the nuclear receptor is a vitamin D receptor.

Claim 3. (withdrawn) A cell comprising a vector carrying a gene encoding a fusion polypeptide comprising DNA binding domain of a nuclear receptor and ligand-binding domain of a nuclear receptor, and a vector carrying the binding sequence of the DNA binding domain of the nuclear receptor and a reporter gene located downstream of the binding sequence.

Claim 4. (withdrawn) The cell of claim 3, wherein the DNA binding domain of the nuclear receptor is originated from GAL4.

Claim 5. (withdrawn) The cell of claim 3, wherein the ligand-binding domain of the nuclear receptor is originated from vitamin D receptor.

Claim 6. (withdrawn) A method for screening a ligand that binds to a nuclear receptor, the method comprising:

(A) contacting a test compound with the cell of claim 1,

(B) detecting the reporter activity, and

(C) selecting the test compound which elicited the reporter activity in the cell.

Claim 7. (withdrawn) A method for determining whether or not a test compound is a ligand that binds to a nuclear receptor, the method comprising:

(A) contacting a test compound with the cell of claim 1, and

(B) detecting the reporter activity.

Claims 8-9. (canceled)

Claim 10. (Currently Amended) A method for screening for a nucleic acid ~~gene~~ encoding a polypeptide that converts an inactive form of vitamin D3 into an active form, the method comprising

(A) introducing a test nucleic acid ~~gene~~, wherein the test nucleic acid ~~gene~~ comprises a sequence encoding a polypeptide to be tested for the ability to convert an inactive form of vitamin D3 into an active form, into a cell, wherein the cell comprises (i) a vector comprising a nucleic acid sequence encoding a vitamin D receptor and (ii) a vector comprising a binding sequence of the vitamin D receptor and, located downstream of the binding sequence, a nucleotide ~~nucleic acid~~ sequence encoding a reporter molecule,

(B) contacting an inactive form of vitamin D3 with the cell into which the test nucleic acid ~~gene~~ is introduced,

(C) evaluating the activity of the reporter molecule relative to the activity of the reporter molecule in the absence of the test nucleic acid ~~gene~~, an increase in activity indicating that the test nucleic acid ~~gene~~ encodes a polypeptide that converts an inactive form of vitamin D3 into an active form that activates the vitamin D receptor, and

(D) isolating the test nucleic acid ~~gene~~ from the cell if the cell shows an increase in reporter molecule activity.

Claim 11. (Currently Amended) A method for determining whether or not a test nucleic acid ~~gene~~ encodes a polypeptide that converts an inactive form of vitamin D3 into an active form, the method comprising

(A) introducing a test nucleic acid ~~gene~~, wherein the test nucleic acid ~~gene~~ comprises a sequence encoding a polypeptide to be tested for the ability to convert an inactive form of vitamin D3 into an active form, into a cell, wherein the cell comprises (i) a vector comprising a nucleic acid sequence encoding a vitamin D receptor and (ii) a vector comprising a binding sequence to which vitamin D receptor binds and, located downstream of the binding sequence, a nucleotide ~~nucleic acid~~ sequence encoding a reporter molecule,

(B) contacting an inactive form of vitamin D3 with the cell into which the test nucleic acid ~~gene~~ is introduced, and

(C) evaluating the activity of the reporter molecule relative to the activity of the reporter molecule in the absence of the test nucleic acid ~~gene~~, an increase in activity indicating that the test nucleic acid ~~gene~~ encodes a polypeptide that converts an inactive form of vitamin D3 into an active form that activates the vitamin D receptor.

Claim 12. (withdrawn) A ligand that binds to a nuclear receptor, which is obtainable by the method of claim 6.

Claim 13. (withdrawn) A gene encoding a polypeptide that converts a ligand precursor into a ligand, which is obtainable by the method of claim 8.

Claim 14. (withdrawn) A gene encoding a polypeptide that converts an inactive form of vitamin D3 into an active form, which is obtainable by the method of claim 10.

Claim 15. (withdrawn) A polypeptide comprising the amino acid sequence of SEQ ID NO: 1 or its derivative comprising said sequence in which one or more amino acids are substituted, deleted, or added, and having activity to convert an inactive form of vitamin D3 into an active form.

Claim 16. (withdrawn) A polypeptide comprising the amino acid sequence of SEQ ID NO: 2 or its derivative comprising said sequence in which one or more amino acids are

substituted, deleted, or added, and having activity to convert an inactive form of vitamin D3 into an active form.

Claim 17. (withdrawn) A polypeptide encoded by a DNA that hybridizes with a DNA having the nucleotide sequence of SEQ ID NO: 3, wherein the polypeptide has activity to convert an inactive form of vitamin D3 into an active form.

Claim 18. (withdrawn) A polypeptide encoded by a DNA that hybridizes with the nucleotide sequence of SEQ ID NO: 4, wherein the polypeptide has activity to convert an inactive form of vitamin D3 into an active form.

Claim 19. (withdrawn) A DNA encoding the polypeptide of claim 15.

Claim 20. (withdrawn) A DNA hybridizing with a DNA having the nucleotide sequence of SEQ ID NO: 3 and encoding a polypeptide having activity to convert an inactive form of vitamin D3 into an active form.

Claim 21. (withdrawn) A DNA hybridizing with a DNA having the nucleotide sequence of SEQ ID NO: 4 and encoding a polypeptide having activity to convert an inactive form of vitamin D3 into an active form.

Claim 22. (withdrawn) A vector comprising the DNA of claim 20.

Claim 23. (withdrawn) A transformant expressively retaining the DNA of claim 20.

Claim 24. (withdrawn) A method for producing polypeptide, the method comprising culturing the transformant of claim 23.

Claim 25. (withdrawn) An antibody that binds to the polypeptide of claim 15.

Claim 26. (withdrawn) A method for screening a gene encoding a polypeptide that converts an inactive form of transcriptional regulatory factor into an active form, the method comprising:

(A) introducing a test gene into cells into which a vector comprising a gene encoding an inactive form of transcriptional regulatory factor and a vector comprising the binding sequence of said inactive transcriptional regulatory factor and a reporter gene located downstream thereof are introduced,

(B) detecting the reporter activity, and

(C) isolating the test gene from the cells showing the reporter activity.

Claim 27. (withdrawn) The method of claim 26, wherein the inactive transcriptional regulatory factor is a complex of non-phosphorylated NFkB and IkB, non-phosphorylated HSTF, or non-phosphorylated AP1.

Claim 28. (New) The method of claim 10, wherein the test nucleic acid is a human nucleic acid.

Claim 29. (New) The method of claim 11, wherein the test nucleic acid is a human nucleic acid.

Claim 30. (New) The method of claim 10, wherein the test nucleic acid is a mouse nucleic acid.

Claim 31. (New) The method of claim 11, wherein the test nucleic acid is a mouse nucleic acid.

Claim 32. (New) The method of claim 10, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 33. (New) The method of claim 11, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 34. (New) The method of claim 28, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 35. (New) The method of claim 29, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 36. (New) The method of claim 30, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 37. (New) The method of claim 31, wherein the reporter molecule is selected from lacZ, chloramphenicol acetyltransferase (CAT) and luciferase.

Claim 38. (New) The method of claim 10, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 39. (New) The method of claim 11, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 40. (New) The method of claim 28, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 41. (New) The method of claim 29, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 42. (New) The method of claim 30, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 43. (New) The method of claim 31, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 44. (New) The method of claim 32, wherein the cell is a COS-1 cell or a HeLa cell.

Claim 45. (New) The method of claim 33, wherein the cell is a COS-1 cell or a HeLa cell.